

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Claims:**

1. **(Currently Amended)** An ALD process for deposition of a metal selected from Pd, Rh, Ru, Pt and Ir comprising ~~pulsing into a chamber containing a surface-forming a layer comprising the metal on a surface comprising a material selected from W, Ta, Cu, Ni, Co, Fe, Mn, Cr, V, Nb, tungsten nitride, tantalum nitride, titanium nitride, dielectrics, and activated dielectrics~~ a reducing gas selected from glyoxylic acid and imidazole at a temperature ranging from  $>60^{\circ}\text{C}$  to  $<260^{\circ}\text{C}$  so as to form a layer on the surface, wherein the layer comprises the metal.
2. **(Currently Amended)** An ALD process according to claim 1, wherein ~~forming a layer comprises sequentially pulsing into a chamber containing the surface a precursor for the metal and a the reducing gas selected from hydrogen, is glyoxylic acid, oxalic acid, formaldehyde, 2-propanol, imidazole and plasma-activated hydrogen.~~
3. **(Cancelled)**
4. **(Original)** An ALD process according to claim 3 wherein the surface is a noble metal.
5. **(Original)** An ALD process according to claim 3 wherein the surface is a pretreated metallic surface selected from W, Ta, tungsten nitride, tantalum nitride, and titanium nitride.
6. **(Original)** An ALD process according to claim 3 wherein the surface is a metal selected from Cu, Ni, Co, Fe, Mn, Cr, V and Nb.
7. **(Currently Amended)** An ALD process for deposition of a metal selected from Pd, Rh, Ru, Pt and Ir comprising  
  
providing a surface comprising a material selected from noble metals, W, Ta, Cu,

Ni, Co, Fe, Mn, Cr, V Nb, tungsten nitride, tantalum nitride, titanium nitride, dielectrics and activated dielectrics in a reaction chamber at a temperature ranging from  $>60^{\circ}\text{C}$  to  $<260^{\circ}\text{C}$ ;

pulsing a precursor for the metal into the chamber; and

pulsing into the chamber a reducing gas selected from glyoxylic acid, ~~oxalic acid~~, formaldehyde, 2-propanol, and imidazole.

8. **(Original)** An ALD process according to claim 7 wherein the reducing gas is glyoxylic acid.
9. **(Previously Presented)** An ALD process according to claim 7 wherein the activated dielectric surface comprises at least one of thiol, sulfide, tetrasulfide, phosphine, phosphide or amine groups.
10. **(Previously Presented)** An ALD process according to claim 7 wherein the activated dielectric surface comprises thiol groups.
11. **(Previously Presented)** An ALD process according to claim 7 wherein the dielectric is selected from CVD polymers, organic-inorganic hybrids, and silicon or metals having an oxide-terminated surface.
12. **(Currently Amended)** An ALD process for deposition of a metal selected from Pd, Rh, Ru, Pt and Ir comprising  
providing a substrate in a reaction chamber;  
pulsing a precursor for the metal into the chamber at a temperature ranging from  $>60^{\circ}\text{C}$  to  $<260^{\circ}\text{C}$ ; and  
pulsing ~~plasma-activated hydrogen gas~~ glyoxylic acid into the chamber.
13. **(Currently Amended)** An ALD process according to claim 12, wherein the precursor is a metal  $\beta$ -diketonate compound.
14. **(Currently Amended)** An ALD process according to claim 12, wherein the

precursor is a metal-hfac compound.

15. **(Currently Amended)** An ALD process according to claim 12, wherein the precursor is selected from  $\text{Pd}(\text{hfac})_2$ ,  $\text{Ru}(\text{hfac})_2$ ,  $\text{Rh}(\text{hfac})_2$ ,  $\text{Pt}(\text{hfac})_2$ ,  $\text{Ir}(\text{hfac})_2$ ,  $\text{Ir}(\text{acac})_2$ ,  $\text{Pd}(\text{tmhd})_2$ ,  $\text{Ru}(\text{tmhd})_2$ ,  $\text{Rh}(\text{tmhd})_2$ ,  $\text{Pt}(\text{tmhd})_2$ , and  $\text{Ir}(\text{tmhd})_2$ .

16. **(Currently Amended)** An ALD process according to claim 12, wherein the metal is Pd.

17. **(Currently Amended)** An ALD process according to claim 12, wherein the precursor is  $\text{Pd}(\text{hfac})_2$ .